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Constructing Social Environments: The Evolving Relationship between Uses and Management of Urban Greenspace in Stone Town, Zanzibar

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Constructing Social Environments: The Evolving Relationship between Uses and Management
of Urban Greenspace in Stone Town, Zanzibar

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SIT Tanzania – Zanzibar, Spring 2018

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i. Abstract

Despite the overwhelming enthusiasm for urban greenspaces throughout the Global North, discussion around parks in the developing world has scarcely been met with the same vigor. This study aims to bring attention to the unique aspects and strengths of urban greenspaces in East Africa, as well as the ways in which these spaces can be improved. The history, use, and management of greenspace was examined through literature review, observation, and interview. The historical and cultural significance of greenspace throughout Stone Town was found to both influence and run contrary to the current uses. Management of greenspace was convoluted and inefficient due to the Revolutionary Government's history, and continues to influence the location and design of new greenspaces. The uses and management were often incongruous, and did not allow for flexibility. These target areas provide opportunities to better understand the unique aspects of greenspace in Stone Town as well as the ways in which they can be improved.

Muhtasari

Licha ya shauku kubwa ya maeneo ya miji katika Ulimwenguni wote, majadiliano ya bustani katika nchi zinazoendelea haijawahi kupatikana na nguvu sawa. Utafiti huu una lengo la kuzingatia masuala na nguvu za kipekee za maeneo ya miji Afrika Mashariki, pamoja na njia ambazo nafasi hizi zinaweza kuboreshwa. Historia, matumizi, na usimamizi wa greenspace ulifanywa ili kuchunguza kwa njia ya ukaguzi wa maandiko rejea, kutembele maeneo husika, na mahojiano. Umuhimu wa kihistoria na kiutamaduni wa greenspace eneo la Mji Mkongwe ulionekana kuwa na ushawishi wa haraka katika kufikia matumizi ya sasa. Usimamizi wa greenspace ulikuwa ufanisi kutokana na historia yetu, na serikali inaendelea kuamzisha maeneo mapya na dizaini mpya ya green spaces. Kuendelea kushajiisha maeneo na uundaji wa vifungu vidogo vya sheria. Matumizi na usimamizi mara nyingi haziowani, na ni vigumu kubadilika. Maeneo haya yanalenga fursa ya kuelewa vizuri mambo ya pekee ya greenspace katika mji Mkongwe pamoja na njia ambazo zinaweza kuboreshwa.

ii. Introduction

In the apparent age of concrete jungles, we have begun to rebel, creating a new demand from our cities: less concrete, more jungle. In much of the Global North, greenspaces and urban parks are seen as salvation to the city. By incorporating natural spaces into a seemingly unnatural environment, greenspaces and urban parks have widely touted benefits, ranging from environmental to economic and social. Environmentally, greenspaces have been proven to actively cleanse air by trapping dust and pollution in vegetation, reduce noise pollution, and counter urban heat islands inside and outside the park (Cohen et al. 2014). Furthermore, parks have been shown to increase the economic value of property located within walking distance of the greenspace, increase tourism in the area, and even reduce the heating and cooling costs of buildings nearby (Haq 2011). In the West, the social and aesthetic benefits of greenspaces are still regarded as the most desirable, serving as public spaces “where the many functions of community life take place and where people feel ownership and connectedness,” including neighborhood pride and an increased sense of community and belonging (Ciliers et al. 2015: 1371). Greenspaces have also been proven to significantly influence human health, as they can reduce asthma in children, encourage residents to maintain a healthier and more active lifestyle, and reduce mental stress (Haq 2011). These quantitative measures of park value provide practical and financial reasons to incorporate parks into western cities, but what has been said for park development in the Global South?

When discussing greenspaces in the developing world, the literature often emphasizes the lack of resources, funding, or infrastructure available to create parks the way the West does (Haq 2011). However, less time has been spent discussing *why* it is assumed that creating “western parks” is the desired outcome for these communities. For example, when walking through

Jamhuri Gardens in Stone Town, Zanzibar, dozens of residents sit with friends enjoying the surrounding environment, painting the ideal picture of an urban park – except that the area is simultaneously covered in trash. Similarly, a small plot of grass in front of The Africa House Hotel is one of the most widely used parks, as residents gather to play soccer or take a dip in the ocean, a seemingly well designed public space – and yet, the park is entirely informal, under no maintenance from the government. These accounts serve as contradictions to western planning, but demonstrate some of the liveliest and most dynamic relationships within Stone Town. Public parks are part of the incredibly complex network that composes the social environment, a network that weaves door stoops and corner stores to big shade trees and concert venues. These places “speak in multiple ways to differently located individuals, following along the skeins of everyday practice, perspective, and memory,” and their value within a city is nearly incalculable (Bissell 2011: 6).

For some, a public park with a well-designed bench is crucial to enjoying the social benefits of a greenspace; for others, particularly here, a large tree in the middle of town might serve the same social and environmental purpose (Myers 2016). To assess the role of greenspace within Stone Town, it is crucial to address both of these experiences of “nature” as equally significant parts; addressing only the managed spaces would contribute to a western analysis of what constitutes “public parks.” These informal spaces remain unmanaged, and for local governance, it can be conflicting to (a) address the ways that planners inherently play a role in the creation of space, but (b) let these spaces continue to manifest themselves organically. Furthermore, when managing a formalized greenspace, some of the same outcomes of informal spaces are actually *desired*, posing an interesting position for local governance.

Equal to the lack of literature on good parks in the Global South is a lack of literature on how to manage a good park in the Global South, particularly if the best answer is simply to let the park manage itself. Thus, cities and communities looking for resources often are faced with a lack of examples, both for management plans and methods of improvement. The objective of this study is to consider the history, use, and management of eight parks in Stone Town, Zanzibar, developing an understanding for their current operation and devising management recommendations for continued success.

Key Research Questions and Objectives

Through this study, I hope to target three key research areas: History, uses, and management.

- (1) The history of greenspace within the city – What was the historical context in which these spaces were developed, and how have they evolved? How have urban planners included or ignored these spaces? What historic influences, whether cultural or colonial, continue to play a role in greenspaces today?
- (2) The uses of greenspaces by local residents – What are the current uses, and do they align with the desired uses? Who uses these spaces, and why? What do residents value about these parks? What would they like to see changed and improved upon?
- (3) The management of greenspaces by public and private organizations – What duties are divided among what agencies, and are these divides clearly communicated and understood? What power to act do these agencies possess?

By evaluating these distinct areas, I will not assess them as separate research topics, but rather will specifically examine the places where they intersect.

History and Use: The historical social context continues to play a significant role in the uses and users of greenspaces. By understanding the cultural history of these places, including the neighborhoods or social norms associated with each, it will help to inform the current situation of parks. This can include the “who” (i.e. younger versus older generations, economic class, or gender) as well as the “what” (i.e. commerce, religion, relaxation, or politics).

History and Management: The historical context further informs the management, specifically the attention paid to greenspaces over time. The colonial evolution of urban planning efforts has influenced the way spaces are managed, while the attention paid to greenspaces over time can further inform their design and development. Finally, by tracing the blurry distribution of responsibility throughout time, it becomes evident how little priority greenspace has within municipal projects.

Use and Management: Finally, and perhaps most significantly, the interface between uses and management presents the greatest opportunity for understanding and improving upon these parks. Many uses can inform the management, but management can also dictate the uses, two components that are often in tension with each other.

The study concludes with a comprehensive understanding of urban parks within Stone Town, Zanzibar, including a collected historical account of the eight selected sites, interviews from each, and ultimately, management recommendations according to the uses and desires of local residents and current managerial practices employed by the Zanzibar government.

iii. Background



Figure 1. Map indicating Zanzibar's location on the African continent, off the east coast of Tanzania, as well as the location of Stone Town on Unguja Island.

Stone Town is located on Unguja Island within the Zanzibar Archipelago, approximately 36 km off the eastern coast of mainland Tanzania, or 76 km from Dar es Salaam, as indicated in Figure 1. The area of Unguja is 1,464 sq km, while Stone Town itself is located on a small peninsula that is part of the greater Zanzibar City. The island has been a significant part of trade in the Indian Ocean for centuries, and with that power has come an incredible blending of culture and politics. It has also created conflict, as the distinctions between class and race in Zanzibar have given rise to centuries of power dimorphism still evident today. On Unguja Island, 98.9% of the population is Muslim, strongly influencing the cultural norms of the city as well as the uses of public space. The island's complex colonial history has given rise to many unique cultural traditions and urban forms, and is critical for understanding the evolution and context of greenspace in Stone Town.

While this study focused on urban greenspace, the term *bustani* was used to discuss these spaces in all interviews, which directly translates to “garden.” In fact, the word “garden” derives from the Persian word for paradise, as gardens and lush vegetation through the Persian Empire signified the presence of water. The term “garden” has varying interpretations in the English language, but for many, refers to individual, intentional, heavily cultivated greenspaces, for the purpose of food production or aesthetic enjoyment. In other situations, urban gardens are publicly accessible – for example, the New York Botanical Gardens – but are similarly managed, with strict pathways, thoughtful vegetation, and generally restricted uses. Rather, the West uses the term “park” as our catch-all for greenspace, a phrase that can be stretched to include the largest sports fields or smallest urban pocket-park, ecological river walks or industrialized children’s playgrounds. However, in Zanzibar, the word “park” translates into *hifadhi*, which is utilized for national parks, game reserves, and other areas preserved for mega-fauna and safari ecotourism. This apparently slight difference in terminology is indicative of many cultural differences between Zanzibari and Western greenspace, variances that are significant to the understanding of space in Stone Town. This cultural backdrop proves the value of a foundational analysis of greenspace, diving deeply into the history, use, and management to gain a broader context of greenspace.

As early as 3,000 years ago, Arabian traders were able to frequent the East African coast due to the strong monsoon winds. In East Africa, the monsoon winds blow north eastward from November to February, bringing sailors on traditional sailing *dhow*s from east to west across the Indian Ocean and up the coast. These monsoon winds then reverse directions from April to September, allowing the sailors to return home to Arabia and the Persian Gulf. It is widely believed that the Persians were the first Islamic sailors to arrive in East Africa, as well as the first

to begin to build permanent settlements during the 8th century (Mohammed 1991). In the 10th century, Swahili sailors began to further develop the East African coast, bringing gold, ivory, and metals to Europe and throughout Arabia and the Persian Gulf. The East African coast thus had a thriving merchant economy, while the islands of Zanzibar became part of a “chain of thriving Islamic city states” (Else 1991: 9). However, despite the external financial success of the city states, the internal fiefdoms lacked coordination, as “it seems there was no unity among the villagers and due to a lack of united political and cultural stand, they easily failed to resist any occupation” (Mohammed 1991: 3). This became the stage for five centuries of colonial influence.

Portuguese explorers had begun to explore the East African coast by the middle 15th century, and set up safe provisioning and repair garrisons on Unguja Island in the late 15th century (Else 1993). However in 1503, the Swahili rulers lost power as the Portuguese took control of Unguja Island, and later Mombasa and Pemba Island, until Zanzibar and the entire East African coast fell into the Portuguese Empire. It is believed that in 1560, Zanzibar Town was established by the Portuguese, as they built a church and small trading settlement (Else 1993). The Portuguese ruled with “an iron hand,” ruthlessly suppressing the local people, extorting the indigenous population for taxes and goods, and spreading Christianity instead of the locally dominant Islam (Historical Interview 1)(*Zanzibar Guide*). After numerous failed uprisings, Zanzibari leaders contacted the Omani Arabs and requested help in overthrowing the Portuguese. This launched a half-century long battle for control of the East African coast, which the Omanis eventually won in 1698.

Under the Omanis, trade in Zanzibar continued to grow, emerging as a central trading port for slaves and clove, in addition to the gold and ivory trades that already existed. The sultans

of Oman ruled Zanzibar from their capital in Muscat from 1698 until 1832, when the capital was transferred to Zanzibar (Mohammed 1991). Stone Town itself was heavily developed around this time, as the Omani Empire's shift in capital created a building boom throughout the city (Finke 2010). In 1841, the first British Consul was installed in Zanzibar, as the British continued to strengthen relations with Zanzibar in hopes of abolishing the slave trade.

In 1890, the Treaty of Zanzibar was signed to recognize a British Protectorate over the Sultanate of Zanzibar. The Protectorate Council was formed in 1913, meaning the Sultan remained President but the British Resident (formerly known as British Consul) was the acting imperial governor and assumed all administrative power (*Zanzibar Guide*). After WWII, Zanzibaris saw the changing politics of colonialism and began to want independence, and thus the first national election was announced to be held in 1957. In 1954, the first political party was created, called the Zanzibar Nationalist Party (ZNP), comprised primarily of the wealthy minority of Arabs, but the Party President and Vice President were always occupied by Africans to present a multi-racial party (Mohammed 1991). The second political party, the Afro-Shirazi Party (ASP), was formed in 1957 just months before the election "as a political party for the purpose of an African unity meant to overthrow the Arabs" (Mohammed 1991). The ASP won the first national election, while the country was transitioning out of the British Protectorate, but subsequent elections were held in January and June of 1961, in which the ZNP won a majority of the seats on the Legislative Council. These elections ended in violence, as election riots broke out throughout the island. In December of 1963, Zanzibar became an independent sultanate under the ZNP, and one month later, the Zanzibar government was violently overthrown by a coalition of the ASP. Recognizing the political instability, the Revolutionary government hastily

joined with Tanganyika to become Tanzania in April of 1964, just three months after the Revolution.

Locally, the Revolutionary government promoted an Afro-socialism, bringing economic hardship and a political divide between Unguja Island and Pemba Island. They remained in single-party leadership until the first multiparty elections in 1995. In Zanzibar, the political sphere remains stratified, with some tendency to turn violent, as the two dominant parties continue to hold remnants of the racial and socioeconomic divide between the ZNP and ASP. The Revolutionary government has largely followed the British political structure, with numerous departments or ministries, and a heavily bureaucratic system of operation.

The result of these political and cultural forces on Stone Town's urban identity is incalculable. Among centuries of cultural blending, the result is dynamic and collaborative, an urbanity that both defines and contradicts what it means to be a city in the 21st century (Heathcott 2013). As recognition and celebration of these influences, Stone Town was declared a World Heritage Site in 2000 by UNESCO, as "an outstanding material manifestation of cultural fusion and harmonization" (Callenberg 2016: 19).

Within Stone Town, the specific evolution of urban planning, and the greenspaces that accompany it, is largely tied up with these international influences. Through this point, the methods of urbanization were attempts to westernize an African, and therefore assumed lesser, metropolitan center. In 1932, when the Zanzibar Town Board was first established, the board was comprised of Arab, Indian, and European representatives, but Africans were represented by the Town Mudir, as they were "considered by the British as irresponsible" (Sheriff 1992). Throughout the 20th century, researchers disparaged the winding Swahili roads while simultaneously praising previous colonization efforts, stating that "evidence of conscious

planning is greatest in the southern part of the Stone Town where streets lined by low garden walls are shaded with trees and give the impression of a slightly transformed European suburb” (McQuilland and Lanier 1984: 44). Meanwhile, the “African” aspects of Stone Town were cited as a “haphazard development” that would lead to a “downward spiral” for the city if not controlled and countered (McQuilland and Lanier 1984: 43, 50). Unmistakably, the dominant discourse is one of the African inability to self-regulate a city, both colonially and post-revolution. Interestingly, the lack of urban planning was more often the result of absent colonialists than African governance: “On paper, colonial urban plans appear fully formed, the ultimate realization of promises to modernize the city, but in practice they were marked again and again by incoherence, incapacity, and incompleteness” (Bissel 2010: 1).

The perceived chaos of these plans themselves is another result of western influence. While internationals were frustrated by the lack of street names, “urban Zanzibaris frequently mapped the city in terms of lived experience rather than abstract coordinates, linking particular sites to specific moments and personal meanings” (Bissell 2010: 7). This demonstrates a fundamentally different understanding of “urbanity,” a characteristic that bleeds into the use of public spaces and greenspaces. Many of these trends are observable throughout Swahili culture, including the political and religious functions of public space, but most are unique to Zanzibar due to the dynamic and ever-changing influences (Heathcott 2013).

Most recently, the international influence on urban planning has dictated who these spaces are designed for. Despite the liveliness of urban areas, there is an increasing demand for cities to design spaces for tourists, so as to attract investment and encourage future travelers to visit these spaces (Bergman 2013). Tourism itself has rapidly increased in Zanzibar throughout the past decade due to improved accessibility, expanded ecotourism, and development of the

hotel industry. This creates a challenge for managers, as there are many stakeholders to please in potentially clashing positions.

These apparent contradictions dominate Stone Town urbanism, but, in turn, are some of the key functions that make the city so unique and celebrated. Like Stone Town, public spaces rarely have a neat and orderly history, but are significant for the ways they have evolved up to the present finished product. By analyzing the history, understanding the uses, and gathering the management strategies utilized, these spaces can be better celebrated throughout Stone Town, creating a model for success in greenspace design throughout the developing world.

iv. Methods

The study was conducted in Stone Town, Zanzibar from April 5 – May 2, 2018, a total study period of 28 days. The study utilized two key methods, observation and interview, to gather data. Each of these methods, both their application and degree of use, is detailed below.

Sites

To gain a more comprehensive understanding of types of greenspaces, the study focused primarily on eight diverse but public “formal” greenspaces. For the purpose of this study, a formal greenspace is one contained by traditional land-use boundaries, a cultivated landscape with grass, trees, and shrubbery, and public infrastructure including benches or lights (even if not currently operational). Eight park sites were selected for consideration, listed below and mapped in Figure 2. Secondly, the study began a discussion on the significance of alternative greenspaces throughout Stone Town, including large trees that are used as social gathering points or geographic markers, private gardens managed by hotels or restaurants, and open lots that, in abandon, have become overgrown and de facto greenspaces.

Site 1	Jamhuri Garden
Site 2	Mnazi Mmoja
Site 3	Mnazi Mmoja Hospital Gardens
Site 4	Victoria Gardens
Site 5	Africa House Park
Site 6	Kelele Square (Shangani Square)
Site 7	Forodhani Gardens
Site 8	Ngome Kongwe (The Old Fort)

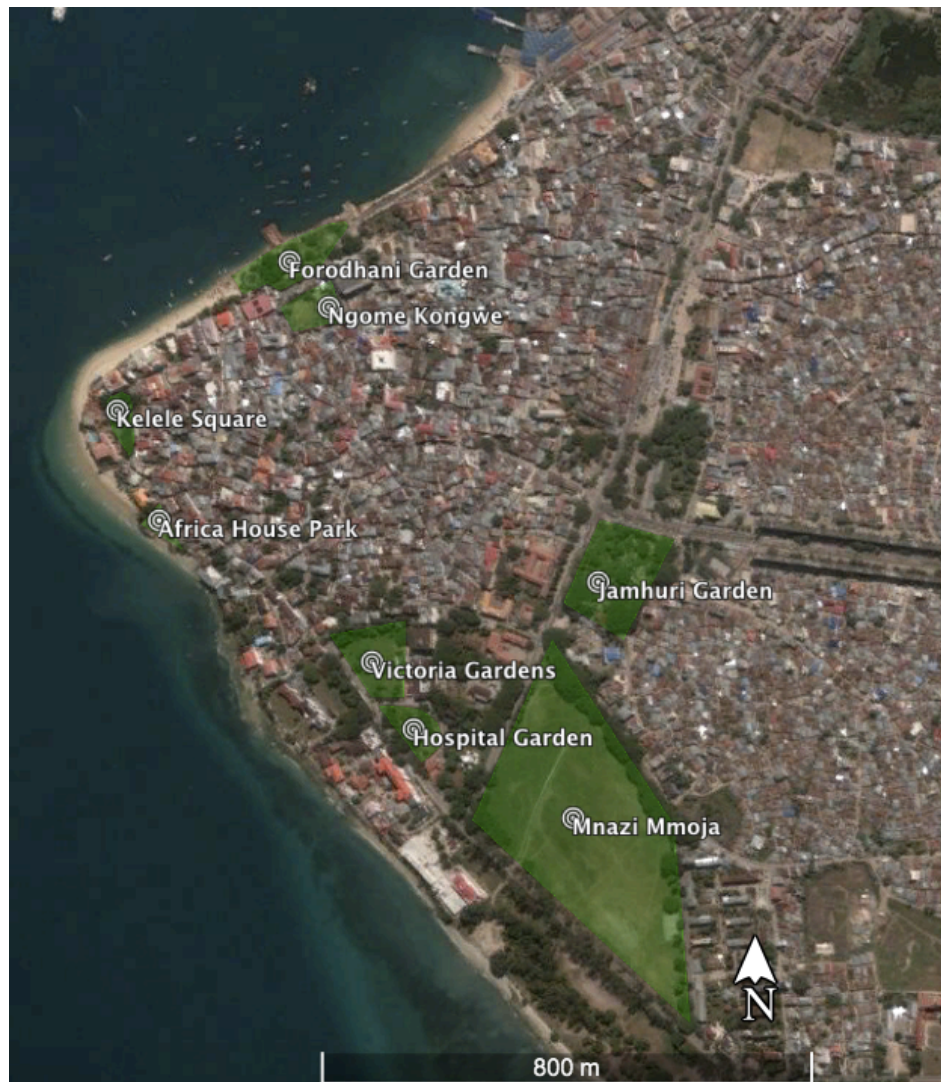


Figure 2. Map of the eight formal greenspace sites considered within Stone Town, with the area of the greenspace shaded in green. This presents the geographical location of the parks as well as the relative size of each. From smallest to largest, the sites are: Mnazi Mmoja, Jamhuri Garden, Victoria Garden, Forodhani Garden, Ngome Kongwe, Hospital Garden, Africa House Park, and Kelele Square.

Observations

The key purpose of site observations was to note the use of gardens at various times during the day, including both qualitative and quantitative data. Qualitative data included my own perceptions of weather and activity, as well as analysis on compounding factors that might currently be impacting the use. To provide quantitative data, a use survey was performed to quantify the uses of each site, compiling data both within the park and for comparisons between sites. To gather data, I visited sites at different times on alternating days and recorded the total number of people, including division of men, women, and children, and the number and type activities taking place. This documented the multi-functionality within one park, including the variance depending on time of day or day of week, as well as a cross-reference to compare activity among greenspaces. Qualitative data collection included perceptions of activity, social interactions among users, and generally observable trends. In addition to data on uses, a baseline survey was briefly conducted to gather information on the infrastructure within each site, including the seating, waste removal, and pathways, as well as general outlines of vegetation within the parks.

Interviews

A total of 158 interviews were conducted, broken into the following categories: 142 users, 15 managers, and one historical informant. These oral interviews were divided into these three distinct categories so as to collect information on three different aspects of urban greenspaces in Stone Town, and informed the study with overlapping – and occasionally contradictory – information. All interviews were conducted anonymously, although the organization and job title were noted during managerial interviews due to the potential shift in information based on the participant's position.

When I began researching, I noticed a distinct lack of consolidated information on the history of greenspace throughout the city, much less for any one particular garden. Therefore, in addition to an extensive literature review, an oral interview was conducted to learn specific aspects of greenspace management and development, as well as how they reflect the larger historical context. In understanding current and future management, it is important to collect information on the historical development of these green spaces, not only ecologically but managerially as well. This interview was treated as a source of data collection, and therefore the questions were explorative and objective, not asking the opinion of the respondent.

“Users” were defined as a person within the park who was actively using the space, either for leisure, commerce or otherwise. Users were chosen somewhat randomly, although I did seek a balanced representation of men and women within the sample. Because these spaces were often male-dominated, this required seeking women in disproportionate representations of their use of the space; for example, in one instance, the park showed approximately 15% female occupancy, but 50% of those interviewed were female. I felt this was important, however, to understand the diversity of experiences, perceptions, and uses within the park. Questions were designed to ask how they utilize the space, including how often they visit, where they live in proximity to the park, what they enjoy about the park, and what they would like to improve about the park. These interviews lasted between five and ten minutes each, and were primarily conducted in Swahili with a translator present. When the user indicated they knew and were confident in English, the interview was conducted in English. The users were asked permission to record the interview, and a transcript was later typed of their responses, allowing greater freedom of conversation flow and more accurate quotations; for those who were not comfortable with an audio recording, notes were taken with pen and paper. In addition to demographic

information including gender (assumed) and age (inquired), participants were asked the following questions:

1	What do you call this place? <i>Inaitwa vipi mahali hapa?</i>
2	What do you like about this place? <i>Unapenda nini kuhusu hii mahali?</i>
3	What do you dislike about this place? <i>Hupendi nini kuhusu hii mahali?</i>
4	Why do you come here? <i>Kwa nini unakuja hapa?</i>
5	How often do you come here each week? <i>Mara ngapi unakuja katika wiki?</i>
6	How far from here do you live? <i>Unaishi umbali gani kutoka hapa?</i>
7	Do you have a garden at your house? <i>Kuna bustani nyumbani kwako?</i>
8	If you could improve the park, how would you? <i>Kama utaweza kuendeleza bustani za mjini, vipi utafanya?</i>
9	What do you know or think about gardens and nature in Stone Town? <i>Unajua nini au unafikiri kuhusu bustani na mazingira katika mjini?</i>

Finally, “managers” were defined as those who are involved in maintenance or ownership of the park in any way, including government leaders, gardeners employed by hotels, and rule-enforcement volunteers. Fifteen interviews were conducted for 15 to 45 minutes in both public and private organizations, the distribution of which can be found in the appendix. These questions were designed to first inquire about the management style, including number of employees, gardening or waste removal tasks, and distribution of responsibilities. The second half was more subjective, asking the manager what they liked and disliked about their job, particular challenges associated with it, how they would like to improve the space, and other perceptions of greenspace in the city. These questions followed a general framework, but were highly variable according to the manager or direction the interview was directed.

v. Results

A series of analyses revealed various practices and patterns of use. When breaking down the data, it was possible to analyze interviews by park or by question, and each concluded different. Based on 142 user surveys, the average age of park users was 30.53. The gender distribution among participants was 37% female and 63% male, even based on the subjective selection of users to seek gender equilibrium.

The most effective way to distinguish between parks is based on the users and uses themselves, including the profile demographic as well as typical use patterns within each park. These summary statistics are presented in Figures 3 and 4. When analyzing user interviews, residents were counted within whichever categories they listed, meaning one respondent could contribute to the total count of multiple categories. For example, when asked “Why do you come here?” one participant responded “I just come here to relax and enjoy the breeze” (User 27). That participant would be counted in both Relaxation and Environment.

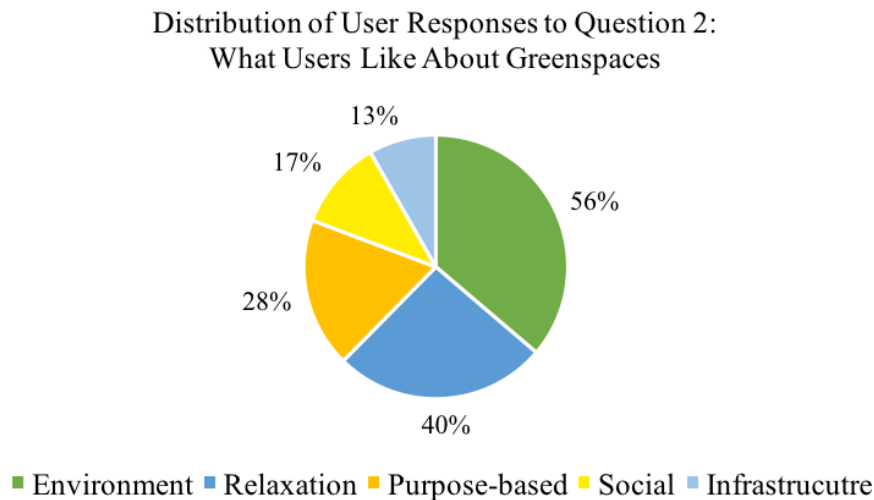


Figure 3. Depiction of percentage of user responses to the question “What do you like about this place?” Categories include environmental, meaning factors including fresh air or greenery; relaxation, including quiet and stress relief; purpose-based, including work, reading, or exercise; social, including for conversation or meeting with friends; and infrastructure, including the benches or cleanliness.

	Environment	Reading and Schoolwork	Relaxation	Social	Sport and Exercise	Visiting Patient	Work or Proximity to Work
Jamhuri Garden	✓	✓	✓	✓			
Mnazi Mmoja	✓		✓	✓	✓		✓
Hospital Garden			✓			✓	
Africa House Park	✓		✓		✓		✓
Kelele Square	✓		✓	✓			✓
Forodhani Gardens	✓		✓	✓			✓
Ngome Kongwe			✓		✓		✓

Figure 4. Differentiation of uses between the seven sites where interviews were conducted. This chart is based on presence or absence within user responses.

Structures of Governance and Management

Within Stone Town, management of greenspaces is divided between both public and private organizations, among many departments even within one legislative body, resulting in a scatter of responsibilities.

The Zanzibar Municipal Council (ZMC): The principle governing body of the city, ZMC splits responsibility for greenspace management throughout at least four departments. The Department of Environment is responsible for gardening and tending to the greenery within the parks, with 37 full-time employees divided into four task groups: pruning, grass cutting, maintenance, and cutting, arranging, and selling flowers (Manager 1). The Department of Health

is responsible for waste removal in the trash cans, the Department of Public Works implements infrastructure including benches, gates, walkways, and other seating, and a separate Department, which the interviewee could not remember the name of, provides light posts and electricity for some parks (Manager 5).

Stone Town Conservation and Development Authority (STCDA): After the 1964 Revolution, many of the architectural and cultural colonial relics were abandoned and fell into a state of disarray. After two decades, cries from both the international community and internal government demanded protection and, when applicable, restoration of these structures. STCDA was created in 1985 as part of the task force to protect the remaining identity of Stone Town, and was designed with a “distinct emphasis on an advisory and controlling role, which by definition rests on legal backing” (Sheriff 1992). Among many duties throughout Stone Town, the STCDA is also responsible for management of Forodhani Gardens in partnership with the ZMC.

Zanzibar City Commission of Lands: The Commission of Lands is broken into three distinct departments: Department of Urban and Rural Planning, Department of Planning and Surveying, and Department of Lands and Reservations. These three offices work together to plan communities, register land, and compile owners and uses of all land within Stone Town and the greater Zanzibar City, including open and greenspace. This task is easier said than done, as 70% of the land is not registered or planned, a trait typical of cities in eastern Africa (Manager 15). The Department of Urban and Rural Planning designs greenspaces for the city, but after designing, the plans are passed to the Municipal Council, as they are responsible for open spaces. The designs are “not always implemented, because... it is an investment” (Manager 15).

Aga Khan Trust for Culture (AKTC): With the creation of their first conservation plan, AKTC has worked in Zanzibar since 1992 to restore aspects of the built environment that are

culturally significant. The privately-funded Trust works internationally to preserve buildings and other cultural landmarks, including public spaces, throughout the world, but particularly in Asia and Africa. Within Stone Town, major projects have included rehabilitation of Kelele Square and Zanzibar Serena Inn, as well as the Forodhani Gardens and Mizingani Road waterfront restoration projects.

Finally, private organizations and NGOs are further involved in maintenance of public parks and occasionally creation of new greenspace. One such example is the Serena Inn staff, which has at least two gardeners who tend to the greenery in front of the hotel, trimming the grass, pruning the shrubbery, and purchasing and planting new plants when applicable. Many other businesses and hotels manage private space within their own property, but Serena Inn is also responsible for the public space. Examples of involved NGOs include the local Jumuiya ya Jamii Vikokotoni (JMJV) or Vikokotoni Environmental Society in the Vikokotoni neighborhood who developed greenspace along a recovered waterway. Additionally, non-profit company funded a Swiss botanical expert to come teach pruning techniques to gardeners in the Zanzibar Municipal Council (Managers 13, 14).

Summary statistics are described briefly below for each site considered, including the site-specific history and current uses. A full profile of each park has been prepared and submitted to involved managers, primarily ZMC and STCDA, so that these managers can better understand the uses and desired uses of these greenspaces, including the suggested improvements.

Site 1: Jamhuri Garden

Jamhuri Garden was created by the British Protectorate around 1930, as the land was recovered and made available soon after the reclamation of Darajani Creek. Simultaneous with the development of Forodhani Gardens, Jamhuri was set aside and cultivated as the primary

garden for residents of the Ng'ambo. Forodhani Gardens was designed as the primary garden for Stone Town residents.



***Image 1.** Users in Jamhuri Garden on a Saturday in the afternoon. Of the public infrastructure, a bench is visible, as well as two green and yellow trash cans. The grass is notably long and uncut, as grass is cut less often during the rainy season, according to ZMC gardeners.*

Jamhuri Garden, as indicated through both interview and observation, is primarily used by students. Of all gardens, it is the only one where users listed reading for schoolwork as a primary reason to attend the garden. Similarly, the average age within the garden is 26.2, the lowest average for all parks. This is likely due to the use of the park by students and younger couples. Compared to the high use, however, the park has far less infrastructure and maintenance than is proportional to both the number of users and land area itself. When asked what they would like to do to improve the park, 68% responded with something related to gardening, including cutting the grass or planting more flowers, while 48% responded with an increase in infrastructure, including additional seating and trash cans. This park serves an additional

important function as a pathway between the Ng'ambo and Stone Town and between daladala stands, meaning exposure to greenspace for many residents simply comes from passing through the garden. The health and relaxation benefits of greenspace are widely believed to be effective at any level of exposure, and thus those walking through the space receive a significant benefit in addition to those who spending extended time in the park.

Site 2: Mnazi Mmoja

This space, along with Jamhuri Garden, is not within the boundary of Stone Town, as it is on the opposite side of the historic saltwater creek that separated Stone Town from the Ng'ambo. The land where Mnazi Mmoja now exists was formerly underwater as part of Darajani Creek, and became a playing field around 1935 with the British reclamation of the area. The name "Mnazi Mmoja" translates to "One Coconut Tree," named after the single coconut tree found on the grounds when it was initially set aside for conservation (Historical Interview 1). This large playing field, developed as a recreation space and cricket playing field for the English Club, is unique in urban eastern Africa, as few colonial or municipal governments had the foresight to conserve a plot of land solely for play. The field was only fully drained in 1957, creating a larger open space. The cricket field still exists in the northwest corner, as well as a basketball court on the northern border, although the area is primarily a soccer field. At the end of Ramadan, the field is also used as a huge space of celebration, when it becomes packed full of families for Idd al-Fitr.

Mnazi Mmoja has one of the highest locality rates among surveyed greenspaces, meaning users within the park have predominately come from the adjacent neighborhood of Kikwajuni, as opposed to other destination greenspaces. Of the surveyed users, 89% walked to Mnazi Mmoja, whether from home or from their workplace, and 100% of users lived within a 10 km radius.

Consequently, surveyed users showed great investment in the future of the greenspace, even offering to maintain the space if they were provided with greenery. This is likely influenced by the locality, as the users visited the park often and considered it an important part of their neighborhood and community. In fact, 44% of participants said they came to the park every day, with an additional 38% coming five or more days a week (the soccer players come Monday through Friday, as the field is used for youth sports games on the weekends).



Image 2. *Mnazi Mmoja is used for recreational, non-competitive soccer as well competitive. Here, two teams play with a referee present on a Sunday in the early evening.*

The space itself has very divided uses: the center of the field is used for soccer, basketball, or cricket, while the outside pathway serves as a more typical garden, with benches and large shade trees that are used for socialization and relaxation. Interestingly, while nearly all those observed were engaged in social functions, only 28% named it as a reason for coming to the park, while a mere 11% listed it as something they enjoy about the space, despite being engaged in these practices. Even while playing soccer, most people involved are relaxing and

enjoying with their friends, “We come to play football for fun, and make us to be fit, physically, and also mentally, because if you are fit physically actually you are growing your mentality” (User 91). In addition to sport and exercise, it is a social and political hub for many older men from the neighborhood, gathering late at night to talk or simply watch the soccer game on the TV positioned at a central node. This space in particular is male-dominated. Its prominence as a sport and exercise location has deterred females from using the space as they otherwise might. During observation, women were primarily noted with men along the benches, although more women have evidently been using the space to exercise as well, playing basketball or going on runs around the perimeter.

Site 3: Hospital Garden

The garden in front of Mnazi Mmoja Hospital is referred to as “Mnazi Mmoja” by users but “Hospital Garden” here so as not to confuse with the Mnazi Mmoja playing fields. The hospital itself is the largest public hospital in Zanzibar and has received funding from many countries. There is a small waiting room for those with an appointment or medical attention, for shorter stays, but patients also stay for longer periods of time within the hospital. Visiting hours are short, for only a few hours per day, and family or friends waiting to visit a patient are not permitted to wait inside the hospital due to perceived noise or disturbance. This made it necessary for a public garden in front of the hospital, and thus the garden has been steadily increasing in quality since its original inception. Most recently, benches were added, and the latest project includes the growth of hedges as a natural boundary to keep guests from crossing on the grass.

The average age of users was 35.3, the highest age class of the surveyed population, likely due to the uniqueness of use. This greenspace is almost exclusively used by those waiting

to visit a patient at the hospital – 96% of respondents stated they were there for that purpose (although one participant was there solely for relaxation). Among those who used the park to visit a patient, 81% reported they only use the park in instances where they are visiting a patient at the hospital, while 19% responded saying they would use the space on other occasions simply to relax. This park therefore serves as an anomaly when compared to other sites, also demonstrated in frequency of use. While most other parks surveyed had the majority of users visiting either 1-4 times a week or every day, those here are likely to visit the park every day for short lengths of times, making their visitation highly more variable. This has cascading implications for their sense of place, as users could come to the park once in their lifetime, for two weeks a year, or every day for a month, entirely dependent upon the health of their friends and family.



Image 3. This image, taken on a Saturday afternoon, shows the high density of users at Hospital Garden as well as the relative gender distribution as a female-dominated space. Many users would spend the entire day at the garden waiting to visit the patient between morning and evening visiting hours. Often, they brought picnics or purchased food from the vendors that walk through the area.

Site 4: Victoria Gardens



Image 4. *Victoria Garden is closed to the public, and currently houses the government office Zanzibar Anti-Corruption and Economic Crimes Authority. While some employees can occasionally be seen relaxing on the front porch, people were not observed in the garden itself.*

Originally, this garden was proposed and constructed in the late 19th century by the Sultan Sayyid Barghash to be used by his harem. It was presented to the town in 1887 for Queen Victoria's Golden Jubilee, and thus was named in her honor. Victoria Gardens, a "pride for the British," was heavily influenced by the British Consul Sir John Kirk, a politician as well as botanist, who helped the gardens reach international recognition (Historical Interview 1). Throughout the British Protectorate, the world-famous Kew Botanical Gardens in the United Kingdom worked in tandem with gardens throughout its colonies, and the gardens exchanged plant species: the British exported species like eucalyptus, tea, cocoa, and coffee to the colonial gardens, and imported exotic species for identification and cultivation. After the 1964 Revolution, the space was renamed "The People's Gardens," although the name Victoria Gardens has remained the more common nomenclature. The space was publically accessible

until the 1996, and it currently is used as the Zanzibar Anti-Corruption and Economic Crimes Authority. Access to the public is now prohibited, and while ZMC still tends to the gardens, there is extreme government precaution surrounding these private spaces. This made any additional research on the current uses of the garden unfeasible.

Site 5: Africa House Park

The plot of open space in front of the Africa House Hotel is currently utilized as a greenspace for visitors and residents alike, although the space was colonially utilized by British officials. Africa House Hotel itself was used as the English Club during the British Protectorate, a members-only space that locals could enter by invitation only (Historical Interview 1). The greenspace in front of the English Club, however, has always been publically accessible, and today it is used primarily by neighborhood residents.



Image 5. *In the early evening, Africa House Park is most commonly used for sport and exercise. In this image, taken on a Wednesday, two smaller groups play keep-away, some do pushups or personal exercise along the edges, and others relax and socialize closer to the water's edge.*

Similar to Mnazi Mmoja, Africa House has a high locality rate, with 100% of surveyed users living within a 10 km radius. There is a stronger conflict in user activity than seen in other greenspaces, as many come for relaxation and seek quiet, while others come for sport or play and seek the freedom to shout, run, or play music aloud while exercising. Thus, the highest response rate for what users disliked about the space was noise (45%), principally a response from those who also reported they were there for quiet and relaxation. This opposition to disturbances was also conveyed by a group of four mothers that brings their children to the park to play at the beach, who exclaimed, “There are men who come and drink, smoke, it is not an atmosphere for families,” “Mostly men come here, there are no ladies!”, and “We don’t get our privacy” (Users 139, 140, 141). While these women were opposed to the other users in the space, for those men smoking, the greenspace likely provided a desired social outlet or necessary stress-relief. This could be due to the size of the park, as it is one of the two smallest sites considered, and thus all users are visible to all visitors currently within the park. Another source of the disturbances could be the location within the town, directly in front of four hotels serving alcohol. Because Islam does not permit alcoholic consumption, these tourist-designed businesses have capitalized and created a small monopoly of the night life in Stone Town, enticing users to employ the space in a way they would not otherwise if it were located in front of a school or hospital.

Site 6: Kelele Square

Also known as Shangani Square or Serena Inn Square, *kelele* translates to noise or shouting, referencing the space’s original use as Zanzibar’s main slave market before the 1860s. Later on, the building adjacent to the greenspace was used as a telecommunication center during the British Protectorate, with an underwater telecommunication line that connected it to other regions. After the building was closed, it most likely was abandoned after the Revolution,

following the trend of all relics of the British Protectorate. The rehabilitation of Kelele Square was AKTC's first involvement in the restoration and preservation of Stone Town, undertaken as part of AKTC's Aga Khan Historic Cities Programme. The project was completed in 1997, immediately following the rehabilitation of the ex-Telecom Building into the AKTC's luxury hotel line, Serena Inn. The space was primarily restored in conjunction with the restoration of the building itself, as "restoring a historic building without rehabilitating its surrounding public areas or the infrastructure would be nothing more than a waste of time and resources" (Balcioglu 1992: 130).



Image 6. *Kelele Square is surrounded by hotels, shown here with the Serena Inn on the right and the Beyt al Salaam hotel and restaurant. Further down the path, taxi drivers and tour guides are visible talking and relaxing under a large shade tree.*

The space, despite being adjacent to three prominent hotels, is not well used by tourists. Instead, the primary users are tour guides, taxi drivers, and other businessmen involved in the tourist industry, who wait in the area to either solicit work or be called on by the hotels. When surveyed, 77% of users were in the area for work purposes, as opposed to the 23% who came for

social reasons or the 15% who came to relax, and a mere 8% (one respondent) who referenced environmental reasons. For most of the interviewees, despite only listing employment as their reason for coming, these reasons are actually one and the same: those waiting for work socialize with their colleagues and relax on the shaded benches. One user, sitting under a tree nicknamed “The Business Tree” expressed this sentiment by saying, “I am a tour guide. I am coming to see friends and talk about so many issues. [We talk] about many things, about life, about politics, about social life, about so many different issues of our daily life” (User 81). However, these uses can be hard to separate, as this space is highly multi-purpose when compared to the other sites surveyed; there are not *more* uses than other parks, but the uses themselves work more harmoniously with each other. Largely due to this lack of conflict, 54% of those surveyed responded there was nothing they did not like about the garden, the highest percentage across all parks.

Site 7: Forodhani Garden

This formal garden site directly translates to “harbor,” although it was originally called the Jubilee Gardens when designed by the British in 1935. The space was created with a central bandstand, fountain, seats, and small pier that are visible today, though it was largely abandoned after the 1964 Revolution along with many of the colonial relics. However, in 2009, the AKTC, together with the Stone Town Conservation and Development Agency, completed a renovation project for Forodani Garden and the adjacent seafront, revitalizing the area as a site of cultural heritage and an open space for visitors and residents alike.

Forodhani has one of the most diverse demographics, due to its central location as multi-use space. Unlike Kelele Square, these uses are separated throughout the day, as people come to relax during the daytime or get food at night, when a courtyard becomes a vendor-hub with

tourist focused food like “Zanzibar Pizza.” The space is richly vegetated and social, used commonly by people in pairs or groups as well as alone, making it appeal to those who want to relax, enjoy the environment, or meet with friends. The many uses appeal to the widest demographic of both residents and visitors, each able to find enjoyment, to wit: “I like that you got the sea view, and then you can sit in the shade of trees, and it's a place where different people come so you can meet different people. It's very clean and sometimes during the night hours there is lots of food” (User 41). The space is adaptable, and for this characteristic it is celebrated.

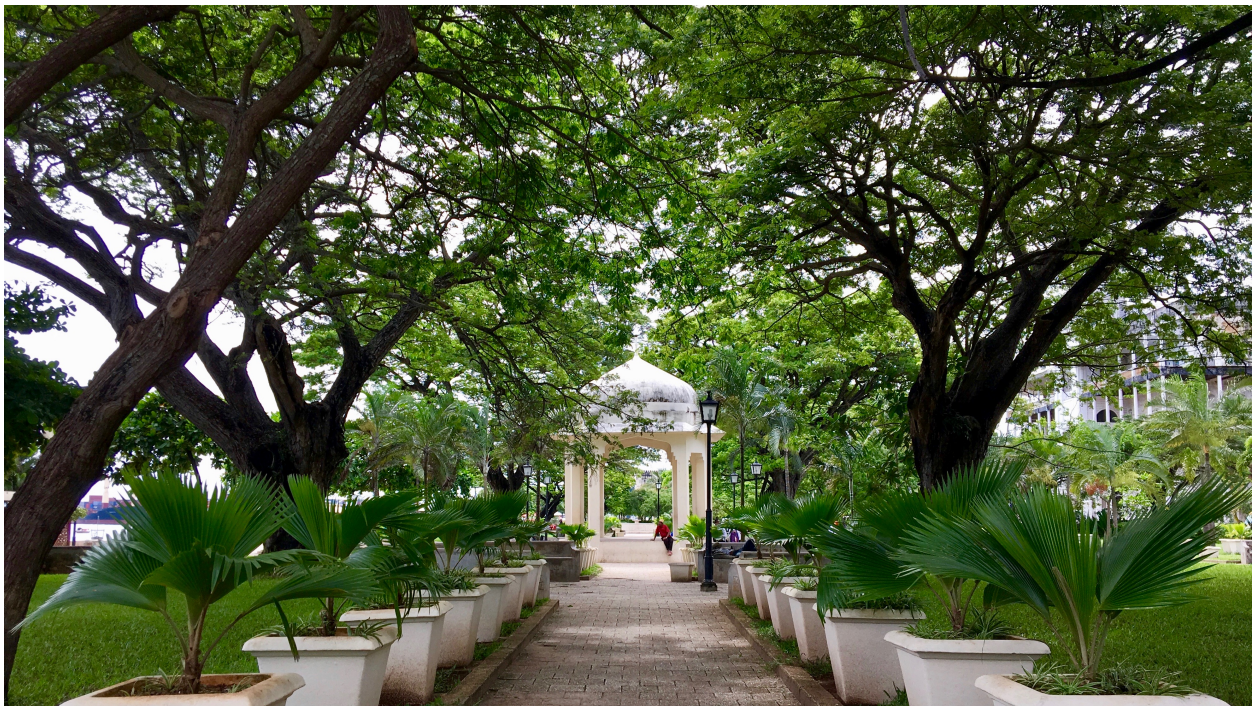


Image 7. *The 2009 restoration of Forodhani Gardens made tremendous improvements to the built infrastructure in the garden. This photograph, taken on a Saturday afternoon, shows the lush vegetation and shade cover as well as the European-style greenspace design.*

Site 8: Ngome Kongwe

When the Omanis finally defeated the Portuguese in 1698, they rapidly erected Ngome Kongwe (also known as the Old Fort or the Arab Fort) to defend against potential invaders. It was completed by 1701. The site chosen for the fort was the previous Portuguese church, and remnants of the old church are still visible, as built into the inside wall (Else 1993). The site has

been used and modified throughout the centuries to be utilized according to the demands of the time. Throughout the 19th century, it was used as both a garrison and a prison, and in the early 20th century it was used as a terminal for the Bububu railway line. In 1949, a new guardhouse as built and it became used as a ladies' tennis club. Most recently, half of the fort has been converted to an open-air amphitheater, utilized by local dance groups and musical performances. A small restaurant and shops were also built, along with a small visitor's center.



Image 8. *The southern side of Ngome Kongwe contains a grass field as well as several smaller shops. The women shown in the bottom left corner offer henna to tourists, but do not have a shop structure and instead sit in lawn chairs under a large shade tree. Many of the users surveyed responded they come to work daily, as evident in this image taken on a Sunday afternoon.*

The Fort itself is roughly rectangular and divided in half. The north side contains the amphitheater, shops, and restaurant, and the southern side includes a large grassy field as well as some shops. Participants were therefore asked if they considered the space a garden, to which 73% said no. When asked, ZMC agreed that the space is not a garden. With such interpretations of the label associated, Ngome Kongwe is managed and treated differently than the other

greenspaces considered. When asked what they would like to improve, respondents reflected this difference: (47%) said they would like to improve the infrastructure in Ngome Kongwe, whereas at every other site respondents considered “gardening” as the highest subdivision for improvement. However, the uses within the space are identical to those previously considered - work, relaxation, and sport or exercise – meaning the difference in perceptions and management is not synonymous to the difference in use.

Alternative Greenspaces: Trees, Graveyards, Open Lots, and Private Enclosures

The Big Tree, known simply in Swahili as *mtini* or “the place of the tree,” denotes an enormous Indian banyan tree (*Ficus religiosa*) along the central Mizingani Road (Appendix: Image 1). The tree was planted by Sultan Khalifa bin Haroub on November 20, 1944, and the ample shade makes it a popular spot for rest, conversation, and boat building. While within a construction zone during the course of the study, a sign in front includes the type of tree and briefly describes the history, a place marker that was a part of the Zanzibar Stone Town Heritage Society’s 2006 project “Marking and Identifying Stone Town Trees.” Other signs are observable throughout town, most notably the one placed on a large *Melicia excels* planted in 1880 (Appendix: Image 2). I was unable to connect with any employees who worked on the project itself, nor is a compiled map available of all trees that were part of the original project, but the signs themselves point towards the societal valuation of large trees and their history. Other trees were found throughout the city, and at one large Indian Almond in northern Stone Town, community members found sitting around the tree said it has been there for at least 50 years. They additionally stated that residents come to sit in the shade or relax, serving the same function as public parks on the perimeter of town, but deeper inside the city. From my

observations, many trees like this exist throughout the city and are socially valued within the neighborhood, hyper-local greenspaces that are not mapped or tended to by any governing body.

Historic graveyards have become prevalent green or open space throughout the city, whether placed at mosques or nearby historic buildings (Appendix: Image 3 and 4). A greenspace adjacent to the Old Dispensary building, has been converted into a garden, while a former graveyard in front of the Palace Museum is a private greenspace. Due to this trend, I believe there are other similar locations throughout Stone Town that I did not encounter during my study, but should be considered in the total area of greenspaces.

When walking through the winding Stone Town streets, many apparently open lots dot the town, and have become overgrown and green (Appendix Image 5). Some have large trees, indicating the lots have been open and uncultivated for decades. These spaces, by definition, provide greenery to an otherwise stone city, even though many are overgrown with weeds. Now, many of them unfortunately serve as a dumping ground for trash and debris (Manager 15). This not only introduces a health risk for residents, but additionally changes the user perception of the area, as it is now seen as a trash pile as opposed to a socially-valuable greenspace. These spaces provide opportunities for improvement, and while not currently a traditional greenspace, are important considerations in the overall context of Stone Town gardens.

Finally, the surplus of private greenspace throughout the city speaks to the changing nature of who greenspaces are for. While the other alternate greenspaces listed are all publically available and are not increasing in size or quality, the private greenspaces are quite the opposite, both expanding in area and being tended to more carefully. It appears that most of these private spaces have been developed commercially, primarily by hotels or restaurants targeting tourists, contributing to the perception of lush vegetation associated with Zanzibar and the tropics in

general. Interestingly, the private gardens tended to have a different plant composition than the public gardens, with more flowering bushes and fewer large shade trees. Bougainvillea in particular was extremely common in private gardens but not found as often in public, while the larger trees were more likely to be palm trees as opposed to the *Albezia* rain tree or *Acacia* tree. This was not the case for all gardens, as the hibiscus flower and Indian Almond tree were found in fairly uniform distribution.

Concluding Remarks on Results

By presenting these results in a case-by-case basis, I hope to have conveyed the intense variability among sites. Sites cannot be managed uniformly due to the differences in design, use, and users. The anomalies should be treated with extra care as opposed to cut out of the management plans. Among sites, there are inherent similarities, and from these, general management recommendations can be derived. For each park to flourish, design and care should come from the unique aspects of the park itself, based on what is said by the user and observed within the park. These localized management plans can only be successful with a strong foundation in the broader context of greenspace within Stone Town, and thus the major trends also deserve thorough analysis. These trends are discussed in the following section, helping to inform a later discussion on smaller examples of site-specific details that will best enhance the greenspaces.

vi. Discussion

After collecting data in history, use, and management of greenspaces in Stone Town, the most effective method of analysis comes not from discussing these as separate parts, but rather the ways in which they overlap and contradict one another. After deeply studying the

foundations by which greenspaces exist in Stone Town, the gardens can be improved in site-specific and community-incorporated ways.

History and Use

When tracing the history of greenspaces in Stone Town, many spaces are nearly identical to their uses when originally cultivated. Jamhuri and Forodhani each were designed as quiet spaces of relaxation during the British Protectorate, and continue to be used in that manner today. Mnazi Mmoja was developed as a sports field for the English Club, and is still one of two playing fields in the immediate Stone Town area. Residents still go to Africa House Park to enjoy the sunset, just as they have since the 20th century. Even at *Mtini*, The Big Tree, community members have rested under the shade for nearly a century to socialize or take a break from boat repair. It is challenging to determine if these spaces continue to be used as they were historically because of the design, a culture of continuity, or if there is an unthinking rigidity attached to the previous uses. In some cases, the topography itself lends itself to a particular use, as is the case for Mnazi Mmoja, while in others, greenspaces might be used as they were because it was passed down through the generations, as the uses at The Big Tree suggest. Furthermore, these historical contexts might not be conveyed during an interview, either because the respondent feels it is unnecessary to say or because it is so intrinsic that it is not even considered as a conscious factor in use. For other spaces, however, there appears to be an undercurrent of resistance to the historic use that is currently suppressed. The eruption of Forodhani at night suggests it has uses other than a relaxation destination, running contrary to the British design. Meanwhile, a children's park developed previously at Jamhuri makes the space appealing to families, but the increasing trend as a student work space renders half the park unusable to its primary population.

While some greenspaces align with previous use, many are now the antithesis to their original design. Kelele square, the original slave market, is now a quiet and serene space. Ngome Kongwe, used as a prison, is home to small shops and a serene lawn. Even Victoria's Garden, renamed "The People's Garden" after the 1964 Revolution, is now restricted from the people themselves. In some cases these changes are benefits, but in all cases, these changes are an indication of the creative potential of public space. Greenspace should be fluid and allow for changes in use to continue with changes in society, and only through the determination of users will these spaces actually change. When alternate demands are made from public space, the space itself will naturally evolve to fit the changing needs.

Another primary historic influence on the uses of greenspace comes from the evolution of the culture itself, namely, the Swahili and Islamic social rules that determine public behavior. Due to the religious practices surrounding romance and dating, many young couples use the public space to share in each other's company. These gatherings are often conducted in public spaces to ensure that they are recognized as following societal expectations for modesty and conservativeness pre-marriage. This is a clear use of gardens through simple observation, but further nuances exist within each park. For example, when conducting interviews, I suggested to my translator that we turn down a path within Jamhuri Garden that we had not yet been down, but he exclaimed, "But that area is for couples!", implying that there are known social norms attached to using greenspaces for exploring relationships. This use of space has become one for both experimentation and ritual, as young couples both follow traditional Muslim practices, but ones that have been strongly modified for the 21st century.

Another section of use that is most distinctly impacted by the historic Muslim culture is the gender dynamic within greenspace. The majority of users within spaces are men, along all

age classes, although particularly among older generations – younger generations of Swahili women are more likely to utilize greenspaces in groups, to study or relax together. An exception to this trend is at the Hospital Garden, where the majority of users are female, and of an older age class. However, as 96% of users are there to visit a hospital patient, the social rules regarding the space are quite different – women, as nurturers, are expected to care for the sick and thus are more likely to visit the space. More pragmatically, these women might also be unemployed and thus have more time to visit their patients, while their husbands are still laboring. Ngome Kongwe too proved an exception to the rule, due to the changing economic viability of women. Most survey participants at Ngome Kongwe were workers in the shops, and so the social expectations for employment might not be indicative of the social expectations for women relaxing alone in a public space.

History and Management

Current explanations for management strategy can be found within the history, as greenspace and other urban forms have been controlled by the government for centuries. By resting in historic structures, the management lacks the fluidity and adaptability necessary for constant evolution.

The built form of Stone Town can be traced back to the two most prominent colonial powers: The Omanis and the British. Most of the architectural development was completed throughout the Omani Empire when the fossilized coral mines were developed and houses could be built two to four stories high, meaning the physical characteristics of many buildings are still today similar to their 19th century appearance. The arrival of the British Protectorate did not bring significant changes to this aesthetic, but instead changed to the physical urban structure through comprehensive plans and municipal services like roads and sewage (Sheriff 1992). The colonial

government focused energy on land acquisition, both to develop the land for administrative buildings and to control the town's growth by having power over the structures that would be erected on the little open space that remained (Sheriff 1992). One large change the British brought was the reclamation of Darajani Creek in the 20th century, filling in the seawater creek that had previously divided the Stone Town peninsula from the Ng'ambo and the rest of the island. However, most attempts from the Municipal Council were ineffective due to lack of staff, funding, and political will, as well as the perceived disorganization of the former administration, and as a result, many of the plans from this era were not actualized (Sheriff 1992).

As the British Protectorate designed the Revolutionary Government for the decade before seceding power in 1963, the current management appears very similar to the British model. ZMC is comprised of many semi-autonomous departments with little inter-department coordination. In theory, this makes each department self-contained and efficient. Unfortunately, the cross-over nature of greenspaces renders this management style largely ineffective. Additionally, the lack of a "Department of Parks and Recreation" equivalent makes it challenging to modify uses as opposed to modifying the physical environment. For example, many Ngome Kongwe survey participants noted their pride in the antiquity of the space and did not want to change it, so as to preserve the history, but changes of use might enliven the space for the benefit of all involved. For example, advertising a dancer showcase, hosting free public concerts in conjunction with the Dhow Music College, or using the grassy field for sport would draw additional people and revenue into the site without jeopardizing the historical significance. This sort of programming is easily repeatable for greenspaces throughout the city, but without a department directly overseeing the social functions of parks, this use slips through the cracks. The historic management regime draws strict boundary lines between responsibilities of offices, and this

enforces a rigid separation of management without any department to see the bigger picture.

Public spaces contribute far more than the gardening, benches, and cleanliness that are currently addressed by management; the distinct components of public greenspaces must be seen and organized cohesively to maximize value, a function that is not supported by the current jurisdiction.

In addition to current management regimes, the history also impacts the designs and projects that are typical outputs from the city government. In Zanzibar City, the Department of Urban and Rural Planning is responsible for designing one greenspace quarterly, or four a year, and submitting these designs to the Department of Environment, which officially manages open space throughout the municipality. Just like the British Protectorate planners, designs are rarely actualized, but here it is because of the lack of feasibility of the plans themselves. The plans generated are “not just a green area, but have space for children, a restaurant, kiosk, gardens,” more similar to the \$2.4 million Forodhani design, and are thus major investments (Manager 15). This is typical of colonial governance, as the creation of Forodhani itself was a celebration of King George V’s Silver Jubilee – new public parks were created for grand occasions and required capital investment. Instead, a shift in scale can make additional public greenspaces both applicable and feasible to the current demographic. Scaled-down “pocket parks” are microscapes within an urban setting, where a small alleyway or open lot can become a greenspace, with important social and environmental benefits. For some, these greenspaces might even already exist, as is the case for many of the large trees throughout Stone Town, where the simple addition of a bench would tremendously contribute to current users’ perceptions of the area. For others, it can be easier to lightly develop an overgrown open lot, by pruning and implementing trash removal, than to acquire new land and invest heavily in infrastructure. Because these types

of projects have not been designed or implemented previously, it can be challenging to experiment with them, as designs themselves take substantial time and thoughtful energy. Ideally, because the spaces are scaled more manageably, all designs would be able to be completed in-house and according to current and desired uses.

In addition to the designs themselves, the historic development of greenspaces is also strongly influenced by place. The geographic location of greenspaces within a city is often correlated to class or race, and Stone Town is no exception. Historic parks were positioned in the wealthiest parts of town or nearby the colonial authorities, while little to no greenspace was created in poorer parts of town. Within the Ng'ambo, Jamhuri Garden is one of the few formal greenspaces, partly because the British planning authority did not exert influence over the neighborhood planning and partly because that same authority chose to ignore a subset of the population. Throughout Stone Town now, it is noticeably difficult to develop new greenspaces, as the city has densely built up and left little room for open space. The perimeter of Stone Town is densest with greenspaces, along the waterfront and away from the labyrinth, which is the most expensive and tourist-oriented section of town. When developing new spaces or improving upon existing ones, it is important to consider the location of parks as a direct and deliberate influence on whom the space is for, and in that sense, what populations are valued enough to gain greenspace.

Use and Management

The way that a space is used can determine the management of that greenspace. The best example of this is Mnazi Mmoja fields, one of the most apparently single-functional greenspaces within the city. However, as the space was also used as a more traditional garden, benches were added along the perimeter. The edge of the field is also becoming a popular running spot, for

both men and women, and there are considerations to pave the walking path around the field because so many people use it for running (Manager 15).

The way that a space is managed can, in turn, define its use. For example, at Forodhani Gardens, a sign with a long list of rules welcomes visitors to the space, with instructions such as “no swimming” or “no playing music loudly.” The reason for this, according to the Director of Forodhani Gardens at STCDA, is that “it is designed to be silent, a cool place. Nobody is supposed to come be loud, or fight, not even speak loudly... they are not supposed to be swimming because it is loud, disruptive, no one is just ‘swimming’ you know? (Manager 11). Indeed, during the daytime these rules are lightly enforced by the Community Police, and it is a quiet place of relaxation. However, during the evening food market, particularly on weekends, the space is transformed. It becomes vibrant, clamorous, and electric, a meeting spot for friends and families as well as strangers. Teenage boys have diving contests off the seawall, children bike circles around the enclosed play structure, and two men on a jet ski race circles around the harbor while a crowd holds its breath, erupting into laughter if and when they fall into the water. This use of space feels organic, and is largely due to a relaxation of the rules. Simultaneously, it is due to the creation of different rules, as STCDA is actually responsible for the food market, bringing the vendors and dictating their influence through small fees or rules that apply only to vendors. It is both organic and contrived, a space of order and disorder, where everything appears hectic but is completely controlled. In most cases, the people who visit Forodhani Gardens in the daytime are different from those who visit at night, because they have different desires of greenspace. Because of these differences of use, the space itself must be flexible, but moreover, the management must be flexible as well.

There are additional conflicts between what is managed and what users perceive to be managed. The existing management regimes are not communicated to the public, as residents are largely unaware of the gardeners or security officers. By communicating these roles, users might see that there is a thoughtful framework for greenspace management and thus change their perception that the government does not care for the parks. While some confusion can be clarified through communication, much of this can only be conveyed by completion of assigned tasks. For example, a high percentage of the total population surveyed responded they would like to cut the grass in order to improve the park, but during the rainy season, it is too difficult for many gardeners to trim the grass because the equipment cannot operate in the mud. By conveying this message, it proves that the space is still cultivated and cared for, and is a logical explanation that will inform the public that the government is in fact in control of the space. This point is not articulated to the users because managers assume the visitors are indifferent, or do not care about the aesthetics of the park (Manager 6, 7). For other incongruences, like collection of trash, park users feel disheartened from using the trash cans because in their perspective, ZMC does not come to empty them (User 127). Finally, many users expressed interest in developing a security officer or rules enforcement office to decrease disruptions in the area, perfectly unaware that such a person exists. This security officer, then, is not visible enough to the general population to be an asset to the park. Many of the stated improvements of parks are frameworks that already exist within the management, and are either not communicated or not completed sufficiently. Before suggesting major investments to improve the park, it is important to begin by perfecting the framework that is already in place at little or no cost.

Concluding Thoughts on Discussion

While many aspects of greenspaces fit beyond the realms of these lenses of analysis, these three components and their overlaps compose the foundation for both theoretical understanding as well as pragmatic planning of ways to move forward. From the history and use, it is evident that some spaces are confined to the previous uses while others flourish under new uses, and that the role of culture cannot be understated. From history and management, it is clear that the historic governance structure had lasting implications for the power distribution and design generation of current greenspace. Ultimately, by looking at the tensions between use and management, the demand for flexible space can be seen most clearly.

vii. Recommendations

After deconstructing the foundation for greenspaces within Stone Town, it is time to move forward. When building up from the foundation, cohesion should be sought between the three lenses, and while recommendations here are presented in divided categories, they should be understood for the ways they rely on each other.

History

While researching the history of greenspace in Stone Town, I noticed an incredibly scattered collection of information, none of which has been consolidated to my knowledge. The history of these spaces, however, is incredibly valuable and interesting, and many residents and tourists would gain a more comprehensive understanding of Stone Town if provided with the information. With greenspace in particular, the evolution of the city is most visible: historic spaces are reimagined, repurposed, and reinvigorated, bringing the history of the city to life. The stone structures once used as a garrison are now spaces where dancers practice, while

community members play soccer on what was once a brackish water lake. Through this, it becomes apparent that history is not a thing of the past, but is visible and influential in everyday life. It is recommended that the history of greenspace be collected and published. More significantly, public displays of this should be created similar to the 2006 Zanzibar Stone Town Heritage Society's project "Marking and Identifying Stone Town Trees," with succinct information regarding the space itself. This can be orchestrated through STCDA, who is responsible for the preservation of history. As a cultural asset to the city, NGO funding should be available.

Use

While infrastructure investments can be expensive or impossible to execute, modifications in use can radically change users' perceptions of space. This could be done through programming events within the parks, a western model that should not be replicated exactly. Throughout the United States, examples of programming events include screening movies, hosting free public concerts, farmers' markets, craft events, and many other event types, often funded either by a corporate office or the city government itself. Here, programming events should be designed after extensive user interviews that determine what events would appeal to what demographics as well as the feasibility of the events. This could include a 4 v. 4 soccer tournament at Mnazi Mmoja or Africa House Park, a botanical walk at Jamhuri Garden, a traditional music performance at Kelele Square, a monthly Kid's Night at Forodhani where the playground is free, or a dance show at Ngome Kongwe, as suggested earlier. Organic uses of space are dynamic and reflective of the users, but programmed uses can be just as creative, encouraging residents to use the space in a way they might not have otherwise considered based on their experience.

Management

Within the current government structure, a major change that can be made is to modify the scale at which greenspaces are considered. Stone Town does not have significant greenspace inside the city, but the small spaces that currently exist should be celebrated and improved before major renovations are proposed to any of the existing formal spaces. This can include benches around large trees or removing trash within open lots. These are highly viable spaces that would yield tremendous benefits for the residents in the immediate vicinity. Additionally, without having to construct anything, wifi could be added to more public parks, increasing traffic to the area as well as changing perceptions of the spaces themselves. During interviews, the few places with wifi were noted by users as a reason for coming, and were supplied through a corporate sponsorship. The ability to advertise Zantel, Halotel, or other companies could come with the internet, thus creating an incentive for these companies to be the first or best provider of internet.

Second, and more transformative, the management could transition away from current practices. It is incredibly challenging to maintain spaces. As freely accessible greenspaces, parks in particular draw little revenue, and thus are challenging to support or redesign. It is implausible for a city government of any size to keep parks perfectly tended to and free of trash, and thus, resident involvement can become a solution of compromise: parks are better cared for, residents understand the level of work associated, and hopefully, develop better use habits that will make upkeep more manageable. This can be done through the teens and adults living within neighborhoods, many of whom expressed interest to me in becoming involved in gardening project but lacked the pathway to take action. Current NGO literature emphasizes sustainable practice through something referred to as the “self-starter” mentality, meaning projects are more likely to find success when desired, designed, and delivered by the community itself. Highly

motivated groups are able to organize task forces and either complete the desired task or bring enough attention that the government is finally forced to take action, and can call on NGO or international assistance when necessary. This idea works in many places, including in Zanzibar, as exhibited by the Vikokotoni neighborhood. However, many communities are not accustomed to the freedom to ask for things and then receive them, and thus a pathway should be created until the practice is more common-place. This could be done through distribution of gardening and sponsorship information, a user-friendly comment submission forum at ZMC, or even an annual application for a community greening grant, so that groups of residents can gain the necessary capital to truly self-start a project.

In addition to adults, involving younger generations in gardening efforts provides an incredible opportunity to both improve the future of greenspaces and teach about ecological literacy. Throughout my interviews, some participants noted the lack of ecological literacy among urban students, as they are not necessarily exposed to nature in the way that rural residents are. This is partially due to exposure – Stone Town is largely concrete – and partially due to the educational curriculum, as environmental education in schools rapidly declined after the first decade of the Revolutionary Government (Historical Interview 1). Therefore, it could be well-received and highly beneficial to involve younger students in garden field trips, clean ups, and even planting and maintaining. On April 22, 2018, Earth Day, a group of students participated in this type of program in Forodhani Gardens. I was unable to contact the student group participating, but this modest project demonstrates the feasibility of such an endeavor. This minor curriculum change will increase greenspace exposure of students, encourage them to use gardens for their own recreation, raise awareness for proper disposal of trash in public places, and teach gardening skills the students would not otherwise gain.

viii. Limitations and Recommendations for Further Study

It is important to point towards potential biases in the data set, from myself as the researcher, and sources that could have impacted within the interviews, as these could have influenced the results and conclusions drawn.

Biases and Considerations

The power of group think. Many interviews were conducted in pairs, trios, even quads, and may have led to answers that the individual would not ordinarily have concluded. When one person points out what they see as an issue in the garden, it becomes nearly impossible for the next person to ignore, even if they had not seen it before. This was particularly the case for a male-female dual interview, where the female would often defer to the male's answer, and simply reply "the same for me." I shifted towards always asking the female first, although this simply creates an alternate bias. Some interviews became collaborative, to the point where it became impossible to distinguish one person's ideas from the next, slightly shifting the way that the data was collected and analyzed. Additional external factors include weather, as the rain season both influenced the way users perceive the space (people are less happy if it is raining) as well as the answers given (many users recommended a large shade canopy for rain, which might not have been brought up during the dry season). Finally, because the interviews were conducted in Swahili with an inexperienced translator, many nuances within the interview responses were likely lost.

As I collected the data, my presence as an educated white woman potentially influenced the way I was treated and the responses given by participants. It is possible they modified answers to fit what they perceived I wanted to hear, adding a western tilt to their responses, or that I was not given the whole picture because it was assumed I would not understand. As I

analyzed the data, I worked through issues based on previous literature and education I have processed. I am an Environmental and Sustainability Sciences student with a minor in Urban and Regional Planning, with experience in management of public space; I was born into a decade where the dominant management discourse was one of flexibility, adaptability, and community inclusion, and despite my own push backs and challenges, largely consider myself a part of it. The same data could be presented to a different researcher in a different time period and yield radically different results or interpretations, an indication of the partial subjectivity of social sciences.

Recommendations for Further Study

Due to the brevity of time, this study is meant to provide a baseline understanding of park uses, management, and history within Stone Town. General recommendations are relating to this lack of time, including increasing the sample size of user participants, controlling better for date and time per site, and increasing the sample area to include greater Zanzibar City. An environmental assessment should also be conducted, so that the environmental benefits of the greenspaces can be quantified as well as the social benefits. In addition to these general recommendations, there are many topics that were raised in interviews and observation that I was unable to explore. In future studies, three major nuances are recommended as target components of the research project: commercial value, gender dynamic, and space for children.

When interviewing users, I noticed a surprising quantity of park “visitors” who considered the parks their personal office. Because of the national dependence on tourism as a source of income, gardens (particularly Forodhani, Shangani Square, or others close to hotels) become a free space for those involved in tourism to wait or solicit customers. Taxi drivers, tour guides, boat captains, and those selling trinkets spread throughout the park, while nearly all those

interviewed at Ngome Kongwe were shopkeepers. A separate study should focus solely on those who use urban parks as a primary or secondary source of income, in order to better understand the true impact of urban greenspaces on the local economy and within Zanzibari lifestyle. Due to the difference in uses, this class of users likely has different expectations of the parks, as well as different desires and recommendations for improvement.

There is a stark contrast in the use of the space according to assumed gender. For the purpose of this discussion, gender can be defined as a social construct determined by the external performance of gender roles within a society, based largely off of dress and appearance. Assumed gender can exist outside of individual gender identity or biological sex, but within Swahili culture is largely aligned with biological sex. While some of these points were raised during the discussions in this paper, no survey participants were asked questions designed to learn about the different uses of space according to gender, nor their perceptions of space. By narrowing in on this aspect of Swahili culture and Muslim religion, the context of greenspaces can be better understood.

In addition to women, the other missing demographic from these greenspaces was youth. The absence of younger users could partially be attributed to school hours, as many interviews and observations were conducted during school hours, but they were additionally absent during other times. Future study should focus on this demographic group, as greenspace can be a free and important outlet for play and socialization, while still in a safe public space. I recommend that the study focus first on use, to see if spaces of play are more likely in the home or in the street, and second on availability of space, determining if there is an absence of spaces designed to include youth.

ix. Conclusion

Within Stone Town, there is overwhelming appreciation for and support for greenspaces. These highly impactful spaces can be enhanced by a deep understanding of each component: the historical context in which the spaces were created, the current uses and desired uses, and the management structures that influence the greenspace. The methods of collecting this data are significant for the way in which they draw from a wider community of informants. A literature review compiled urban planning theory surrounding greenspaces and their designs and functions, providing foundational expertise to my analysis. My own exhaustive observations allowed a critical analysis of uses, as well as a deep understanding of the physical spaces themselves including infrastructure and vegetation. Finally, by interviewing users and managers, a source-based analysis could be completed based on the community itself, as opposed to a biased assessment of perceived uses and management.

In approaching the study from a variety of data collection, the multi-dimensionality of greenspace is better understood. These are creative and dynamic spaces, a place where nature meets urbanity, and a celebration of the spontaneous but meaningful interactions that define humans as social animals. The history and management can restrict the desired uses, but tremendous opportunity for growth appears if site-specific improvements can raise historical awareness, encourage creative use, and most importantly, increase the flexibility of the management. By adapting to the changing environment, greenspaces can remain adaptable and adored spaces throughout Stone Town.

x. Bibliography

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xi. Appendix

Figure 1. Table of all User surveys.

Location	Time Window	User No.	Sex	Age
Jamhuri Gardens	11:00 - 12:30 Monday	1	M	31
		2	F	25
		3	F	50
		4	F	47
		5	M	30
		6	M	19
		7	M	50
		8	F	18
		9	F	24
Mnazi Moja	12:40-1:10 Monday	10	M	33
		11	M	35
		12	M	32
		13	M	43
Hospital Garden	1:20-2:30 Monday	14	F	54
		15	F	48
		16	F	23
		17	F	50
		18	M	50
		19	F	20
		20	F	19
		21	M	20
Africa House Park	10:30 - 11:35 Tuesday	22	M	48
		23	M	29
		24	M	28
		25	M	50
		26	M	30
		27	M	26
		28	M	34
		29	M	18
		30	F	19
		31	M	31
Kelele Square	11:40 - 12:40 Tuesday	32	M	29
		33	M	37
		34	M	43

		35	F	18
		36	M	30
		37*	F	30
		38*	M	40
		39	M	25
		40	F	24
Forodani	12:45 - 1:45 Tuesday	41	M	42
		42	M	30
		43	M	32
		44	F	27
		45	M	40
		46	M	20
		47	F	70
		48	F	25
		49	M	21
Ngome Kongwe	1:50 - 12:40 Tuesday	50	F	45
		51	F	45
		52	M	47
		53	M	43
		54	M	40
		55	F	50
Jamhuri Gardens	2:20 - 3:30 Saturday	56	M	22
		57	M	25
		58	F	18
		59	F	17
		60	F	17
		61	M	39
		62	F	20
		63	M	36
		64	F	23
		65	M	23
		66	M	30
		67	M	23
		68	F	21
		69	M	22
Forodani		70	M	30

	2:30 - 3:30 Thursday	71	M	24
		72	M	25
		73	F	22
		74	F	21
		75	F	25
Kelele Square	3:35 - 4:30 Thursday	76	M	31
		77	M	32
		78	M	22
		79	M	27
		80	M	30
		81	M	37
Africa House Park	4:35 - 5:40 Thursday	82	M	29
		83	F	22
		84	M	20
		85	M	33
		86	M	24
		87	M	24
Mnazi Moja	6:00 - 6:45 Thursday	88	F	20
		89	M	23
		90	M	32
		91	M	36
Hospital Garden	4:45 - 5:50 Friday	92	F	50
		93	M	46
		94	F	27
		95	M	19
		96	M	18
		97	F	24
		98	M	18
		99	F	25
		100	F	27
		101	M	40
Jamhuri Gardens	6:00 - 6:45 Friday	102	M	22
		103	F	33
		104	F	22
		105	M	27
		106	M	36

		107	F	32
		108	M	25
Jamhuri Gardens	12:15 - 1:15 Saturday	109	F	18
		110	M	18
		111	M	27
		112	M	19
		113	M	19
		114	M	19
		115	F	20
		116	F	30
		117	F	24
Mnazi Moja	1:15 - 2:35 Saturday	118	M	29
		119	F	21
		120	M	20
		121	M	26
		122	M	26
		123	M	20
		124	M	28
		125	M	19
		126	M	40
		127	M	28
Hospital Garden	2:50 - 4:45 Saturday	128	M	37
		129	M	27
		130	M	29
		131	M	52
		132	M	35
		133	M	42
		134	F	64
		135	F	54
		136	F	37
Africa House Park	5:00 - 5:35 Saturday	137	M	53
		138	M	25
		139	F	36
		140	F	30
		141	F	30
		142	F	30

The (*) denoted on User 37 and User 38 represents information that was not used in the park-specific analysis, as neither speaker was fluent in English or Swahili, but was able to provide basic information to the survey and therefore is included in the overall sample.

Figure 2. Table of all Manager survey

Manager No.	Organization Represented	Job Title
1	ZMC Department of Environment	Director of Department of Environment
2	Serena Inn	Gardener
3	STCDA, Forodhani Security	Community Police
4	STCDA, Forodhani	Assistant Manager of Forodhani
5	ZMC Department of Environment	Assistant Director of Department of Environment
6	ZMC Department of Environment	Gardener
7	ZMC Department of Environment	Gardener
8	ZMC Department of Environment	Gardener
9	ZMC Department of Environment	Gardener
10	ZMC, Jamhuri Garden Security	Security Officer
11	STCDA, Forodhani	Director of Forodhani
12	Private Company	Self – Private Garden and Café on Shangani St.
13	Private Company	Self – Assistant at NGO / Private Company
14	Private Company	Self – Director at NGO / Private Company
15	Commission of Lands	Department of Urban and Rural Planning

Image 1. The Big Tree, or *mtini*



Image 2. Sign from the project “Marking and Identifying Stone Town Trees”



Image 3. Open lot with graveyards inside



Image 4. Well-maintained garden outside of a mosque



Image 5. A “de facto” greenspace, with weeds overgrowing an open lot

